

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTADEG1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL 02	LMEDLINE coverage updated
NEWS	3	JUL 02	SCISEARCH enhanced with complete author names
NEWS	4	JUL 02	CHEMCATS accession numbers revised
NEWS	5	JUL 02	CA/Caplus enhanced with utility model patents from China
NEWS	6	JUL 16	Caplus enhanced with French and German abstracts
NEWS	7	JUL 18	CA/Caplus patent coverage enhanced
NEWS	8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	9	JUL 30	USGENE now available on STN
NEWS	10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	12	AUG 13	CA/Caplus enhanced with additional kind codes for granted patents
NEWS	13	AUG 20	CA/Caplus enhanced with CAS indexing in pre-1907 records
NEWS	14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	15	AUG 27	USPATOLD now available on STN
NEWS	16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	18	SEP 13	FORIS renamed to SOFIS
NEWS	19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	20	SEP 17	CA/Caplus enhanced with printed CA page images from 1967-1998
NEWS	21	SEP 17	Caplus coverage extended to include traditional medicine patents
NEWS	22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	23	OCT 02	CA/Caplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	24	OCT 19	BEILSTEIN updated with new compounds
NEWS	25	NOV 15	Derwent Indian patent publication number format enhanced
NEWS EXPRESS	19	SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:22:55 ON 16 NOV 2007

=> file caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 18:23:15 ON 16 NOV 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 16 Nov 2007 VOL 147 ISS 22
FILE LAST UPDATED: 15 Nov 2007 (20071115/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s "organic hydroperoxide" and emulsion
    396001 "ORGANIC"
    3961 "ORGANICS"
    398554 "ORGANIC"
        ("ORGANIC" OR "ORGANICS")
    1045836 "ORG"
    16276 "ORGS"
    1051766 "ORG"
        ("ORG" OR "ORGS")
    1162282 "ORGANIC"
        ("ORGANIC" OR "ORG")
    33827 "HYDROPEROXIDE"
    15415 "HYDROPEROXIDES"
    40186 "HYDROPEROXIDE"
        ("HYDROPEROXIDE" OR "HYDROPEROXIDES")
    1500 "ORGANIC HYDROPEROXIDE"
        ("ORGANIC" (W) "HYDROPEROXIDE")
    209160 EMULSION
    127264 EMULSIONS
    252729 EMULSION
        (EMULSION OR EMULSIONS)
L1      44 "ORGANIC HYDROPEROXIDE" AND EMULSION
```

```
=> s l1 and "propylene oxide"
    192365 "PROPYLENE"
    306 "PROPYLENES"
    192464 "PROPYLENE"
        ("PROPYLENE" OR "PROPYLENES")
    1813269 "OXIDE"
    351993 "OXIDES"
    1912625 "OXIDE"
```

```

        ("OXIDE" OR "OXIDES")
36407 "PROPYLENE OXIDE"
        ("PROPYLENE" (W) "OXIDE")
L2      0 L1 AND "PROPYLENE OXIDE"

=> s l1 and epoxide
        50494 EPOXIDE
        29125 EPOXIDES
        65717 EPOXIDE
        (EPOXIDE OR EPOXIDES)
L3      0 L1 AND EPOXIDE

=> s l1 and (ultrasonic or centrifuge or centrifugal)
        72749 ULTRASONIC
        2558 ULTRASONICS
        73570 ULTRASONIC
        (ULTRASONIC OR ULTRASONICS)
        17809 CENTRIFUGE
        8137 CENTRIFUGES
        22287 CENTRIFUGE
        (CENTRIFUGE OR CENTRIFUGES)
        44383 CENTRIFUGAL
        386 CENTRIFUGALS
        44640 CENTRIFUGAL
        (CENTRIFUGAL OR CENTRIFUGALS)
L4      1 L1 AND (ULTRASONIC OR CENTRIFUGE OR CENTRIFUGAL)

=> d l4 abs ibib

```

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

AB The title method comprises a step of adding a second solvent into a solution composed of the object material to be recovered and first solvent, and mixing to form an emulsion containing the object material non-uniformly dissolved in the second solvent, and a step of separating

the obtained emulsion from the solution. The object material can be an organic hydroperoxide, e.g., ethylbenzene hydroperoxide, cumene hydroperoxide (CMHP), t-Bu hydroperoxide, etc. In embodiment, water (second solvent) is added into a solution containing CMHP and cumene (first solvent) and mixed under ultrasonic wave irradiation to form an oil phase and an emulsion-containing aqueous phase after standing, and then separating the emulsion-containing aqueous phase.

ACCESSION NUMBER: 2005:300308 CAPLUS
DOCUMENT NUMBER: 142:357373
TITLE: Method for recovery of object material from solution
INVENTOR(S): Shiraishi, Shigenori; Goto, Shigeru; Katao, Masaaki
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
SOURCE: PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030359	A1	20050407	WO 2004-JP13991	20040916
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DE, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2005118768	A	20050512	JP 2004-67149	20040310
EP 1679107	A1	20060712	EP 2004-788138	20040916
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1856344	A	20061101	CN 2004-80027837	20040916
US 2007123721	A1	20070531	US 2006-572877	20060322
PRIORITY, APPLN. INFO.:			JP 2003-333159	A 20030925
			JP 2004-67149	A 20040310
			WO 2004-JP13991	W 20040916

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

```
=> s l1 and separation
    214937 SEPARATION
      7800 SEPARATIONS
    221322 SEPARATION
          (SEPARATION OR SEPARATIONS)
    605861 SEPN
      39177 SEPNS
    625673 SEPN
          (SEPN OR SEPNS)
    691036 SEPARATION
          (SEPARATION OR SEPN)
L5          2 L1 AND SEPARATION

=> d l5 abs ibib
```

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

AB Free-flowing granular vinyl chloride polymers which form sols having excellent water resistance, thermal stability, transparency, and blooming resistance are obtained in high yield by emulsion polymerization of CH₂:CHCl or its mixts. with other vinyl compds. in the presence of water-soluble catalysts or reductants, organic hydroperoxides, and maleic acid copolymer salt emulsifiers, followed by addition of water-insol. organic liqs. which do not dissolve or swell the polymer.

and separation of the aqueous phase. Thus, 0.5 kg 30% PVC emulsion (average particle diameter 0.51 μ) and 500 mg (NH₄)₂S₂O₈ were mixed

under N with 3 kg CH₂:CHCl at 50°, then cumene hydroperoxide and maleic anhydride-Me vinyl ether copolymer monopotassium salt (I) were added. After 16 h the resulting emulsion was diluted with H₂O and stirred with di-2-ethylhexyl phthalate (II), then the polymer was filtered out

and dried at 30° for 15 h to give granular PVC in 99% yield. The granular product showed repose angle 34° and bulk d. 0.52 g/cm³; vs. 54° and 0.30 g/cm³ for powdered PVC obtained by spray drying the emulsion. A sol of the granular PVC, II, and Ba/Zn stabilizers showed better fineness, blooming resistance, and thermal stability than a sol of the spray-dried PVC.

ACCESSION NUMBER: 1987:5951 CAPLUS

DOCUMENT NUMBER: 106:5951

TITLE: Manufacture of granular PVC for pastes

INVENTOR(S): Nishina, Masaaki; Nakano, Akira

PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61188402	A	19860822	JP 1985-29823	19850218
JP 03067521	B	19911023		
PRIORITY APPLN. INFO.:			JP 1985-29823	19850218

=> d 15 2 abs ibib

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AB Free-flowing granular vinyl chloride polymers which form sols having excellent thermal stability, transparency, and water resistance are obtained in high yield by emulsion polymerization of CH₂:CHCl or its mixts. with other vinyl compds. in the presence of water-sol catalysts and/or reductants, organic hydroperoxides, and emulsifier compns. of sulfonates, organic sulfates, and/or C8-22 fatty acid esters,

and salts of maleic acid copolymers, followed by addition of water-insol. organic liqs. that do not dissolve or swell the polymer, and separation of the aqueous phase. Thus, 0.5 kg 30% PVC emulsion (average particle diameter 0.5 μ), 1 g NaOH, and 4 g (NH₄)₂S₂O₈ were mixed under N and stirred with 3 kg CH₂:CHCl at 50° for 1 h, then an emulsifier mixture of Na polyoxyethylenelauryl sulfate 15, H₂O 600, and maleic anhydride-Me vinyl ether copolymer diammonium salt (I) 15 g was added at 40 mL/h. After 16 h the emulsion was filtered, diluted with H₂O, mixed with di-2-ethylhexyl phthalate (II) at 5 g/min for 1 h, then filtered out and dried at 30° for 15 h to obtain granular PVC in 98% yield. The granular product showed repose angle 33° and bulk d. 0.52 g/cm³; vs. 55° and 0.29 g/cm³ for powdered PVC obtained by spray drying an emulsion prepared without the I. A sol of the granular PVC, II, and Ba/Zn stabilizers showed better fineness and thermal stability than one prepared from the spray-dried PVC.

ACCESSION NUMBER: 1987:5949 CAPLUS
DOCUMENT NUMBER: 106:5949
TITLE: Manufacture of granular PVC for pastes
INVENTOR(S): Nishina, Masaaki; Nakano, Akira
PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61188403	A	19860822	JP 1985-29824	19850218
JP 03067522	B	19911023	JP 1985-29824	19850218

PRIORITY APPLN. INFO.:


```
=> s l1 and (distill or distalation)
    1471 DISTILL
    493 DISTILLS
    1950 DISTILL
        (DISTILL OR DISTILLS)
    0 DISTALATION
L6      0 L1 AND (DISTILL OR DISTALATION)
```

```
=> s "organic hydroperoxide" and rag
    396001 "ORGANIC"
    3961 "ORGANICS"
    398554 "ORGANIC"
        ("ORGANIC" OR "ORGANICS")
    1045836 "ORG"
    16276 "ORGS"
    1051766 "ORG"
        ("ORG" OR "ORGS")
    1162282 "ORGANIC"
        ("ORGANIC" OR "ORG")
    33827 "HYDROPEROXIDE"
    15415 "HYDROPEROXIDES"
    40186 "HYDROPEROXIDE"
        ("HYDROPEROXIDE" OR "HYDROPEROXIDES")
    1500 "ORGANIC HYDROPEROXIDE"
        ("ORGANIC" (W) "HYDROPEROXIDE")
    3711 RAG
    785 RAGS
    4332 RAG
        (RAG OR RAGS)
L7      0 "ORGANIC HYDROPEROXIDE" AND RAG
```

```
=> s emulsion and (separate or separation or separating)
    209160 EMULSION
    127264 EMULSIONS
    252729 EMULSION
        (EMULSION OR EMULSIONS)
    26833 SEPARATE
    21012 SEPARATES
    47134 SEPARATE
        (SEPARATE OR SEPARATES)
    303069 SEP
    12702 SEPS
    314542 SEP
        (SEP OR SEPS)
    356838 SEPARATE
        (SEPARATE OR SEP)
    214937 SEPARATION
    7800 SEPARATIONS
    221322 SEPARATION
        (SEPARATION OR SEPARATIONS)
    605861 SEPN
    39177 SEPNS
    625673 SEPN
        (SEPN OR SEPNS)
    691036 SEPARATION
        (SEPARATION OR SEPN)
    29955 SEPARATING
    1 SEPARATINGS
    29956 SEPARATING
        (SEPARATING OR SEPARATINGS)
```

106929 SEPG
128962 SEPARATING
 (SEPARATING OR SEPG)
L8 14615 EMULSION AND (SEPARATE OR SEPARATION OR SEPARATING)

=> s 18 and organic and aqueous
 396001 ORGANIC
 3961 ORGANICS
 398554 ORGANIC
 (ORGANIC OR ORGANICS)
1045836 ORG
 16276 ORGS
1051766 ORG
 (ORG OR ORGS)
1162282 ORGANIC
 (ORGANIC OR ORG)
 190942 AQUEOUS
 1 AQUEOUSES
 190943 AQUEOUS
 (AQUEOUS OR AQUEOUSES)
1100180 AQ
 183 AQS
1100289 AQ
 (AQ OR AQS)
1144363 AQUEOUS
 (AQUEOUS OR AQ)

L9 818 L8 AND ORGANIC AND AQUEOUS

=> s 19 and (ultasonic or agitation)
 5 ULTASONIC
 42833 AGITATION
 79 AGITATIONS
 42883 AGITATION
 (AGITATION OR AGITATIONS)
L10 37 L9 AND (ULTASONIC OR AGITATION)

=> s 110 and extraction
 165188 EXTRACTION
 1211 EXTRACTIONS
 165901 EXTRACTION
 (EXTRACTION OR EXTRACTIONS)
 423696 EXTN
 15461 EXTNS
 429589 EXTN
 (EXTN OR EXTNS)
 462276 EXTRACTION
 (EXTRACTION OR EXTN)

L11 13 L10 AND EXTRACTION

=> d 111 1-13 abs ibib

L11 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB Gum resins derived from plant species selected from Boswellia or Commiphora, are extracted from crushed lumps or granules of gum resins with liqs. from natural sources. Thus, a method of extraction of gum resins derived from plants comprises: a. crushing the lumps or granules of gum resin derived from plants, extracting the crushed gum resin with oils from natural sources by agitation like stirring or percolation; b. filtering or centrifuging the extract to remove insol. material followed by steam/vacuum distillation to obtain enriched extract; c. treating the said enriched extract with an aqueous alkali to obtain uniform emulsion of alkali extract; d. treating the alkali extract with mineral or organic acid to maintain pH of 2 to 5 to obtain an acid solution; e. Separating enriched precipitate from said acid solution either by precipitation with an alkali metal salt, filtering the precipitate followed by washing and drying or by extn . with a suitable solvent like toluene followed by washing and concentrating the solution to obtain the enriched precipitate

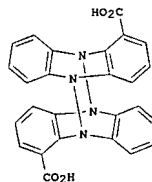
ACCESSION NUMBER: 2007:891423 CAPLUS
DOCUMENT NUMBER: 147:263236
TITLE: A method of extracting gum resins using oils from natural sources
INVENTOR(S): Triptikumar, Mukhopadhyay; Gajanan, Bhat Ravi; Mukund,

PATENT ASSIGNEE(S): Panshikar Rajan
SOURCE: Nicholas Piramal India Limited, India
Indian, 17pp.
CODEN: INXXAP

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 188852	A1	20021116	IN 2000-MU516	20000602
PRIORITY APPLN. INFO.:			IN 2000-MU516	20000602

L11 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
GI



AB A dimer of phenazine-1-carboxylic acid (I) which is a natural product from fluorescent pseudomonad bacterium and a method for preparing this dimer are provided. The method comprises growing the bacterium in a water based liquid medium under favorable pH and temperature with continuous agitation , extracting the dimer of phenazine-1-carboxylic acid natural product from the medium by centrifugation using organic solvents, filtering the resultant emulsion to sep. the aqueous layer in a separation funnel, isolating the crude dimer of phenazine-1-carboxylic acid natural product from the organic layer by evaporating the organic solvent, and purifying the dimer of phenazine-1-carboxylic acid natural product by chromatog.

ACCESSION NUMBER: 2005:1106734 CAPLUS
DOCUMENT NUMBER: 143:385271
TITLE: Dimer of phenazine-1-carboxylic acid and a process for its preparation
INVENTOR(S): Sakthivel, Natarajan; Kumar, Radhakrishnan Sunish
PATENT ASSIGNEE(S): India
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 200527335	A1	20051013	US 2004-888786	20040709
PRIORITY APPLN. INFO.:			IN 2004-DE696	A 20040412

OTHER SOURCE(S): CASREACT 143:385271

L11 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB An extensive study on separation and recovery of uranium (VI) from dilute aqueous solns. using a liquid emulsion membrane (LEM) technique is presented. The study has highlighted the importance of emulsion stability for maximizing uranium recovery. The emulsion constitutes tri-n-octylphosphine oxide (TOPO) as a carrier, paraffin as organic diluent, an emulsifying agent, and stripping phase. The residence time required for adequate pertraction of uranium has been evaluated. The important variables affecting the LEM permeation process such as the concns. of surfactant, extractant,

internal strip phase, and effect of speed of agitation, aqueous feed phase pH, and the presence of iron were systematically investigated. Using suitable values, an attempt was made to recover uranium from a synthetic process plant stream. It was found that strip phase sodium carbonate concentration of 0.5 M gives maximum recovery of uranium. The feed phase pH has been found to be critical for uranium recovery by this technique.

ACCESSION NUMBER: 2002:247921 CAPLUS
DOCUMENT NUMBER: 137:49970
TITLE: Studies on membrane stability and recovery of uranium (VI) from aqueous solutions using a liquid emulsion membrane process
AUTHOR(S): Kulkarni, P. S.; Mukhopadhyay, S.; Bellary, M. P.; Ghosh, S. K.
CORPORATE SOURCE: Chemical Engineering Division, Process Engineering Section, Bhabha Atomic Research Center, Mumbai, 400 085, India
SOURCE: Hydrometallurgy (2002), 64(1), 49-58
CODEN: HYDRDA; ISSN: 0304-386X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 23
THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB During the refining of uranium concs., sodium or ammonium diuranate are treated by a solvent extraction process. The formation of an emulsion or crud affects the purification process and generates losses of valuable uranium during solid liquid separation. The technol. proposed in a first stage uses dissoln. of uranium concs. under heat and agitation in a nitric acid medium. This operation partially removes organic impurities. After the dissoln., the solution is held to remove silica by settling. Part of the organic impurities is removed by filtration together with silica and other entrained impurities/suspended solids. The liquid phase is carbonated until the inorg. impurities are precipitated. From the clear solns. the sodium diuranate is precipitated with sodium hydroxide solution. The uranium purification is controlled by the aqueous phase acidity level. The mechanism of crud formation and prevention are discussed.

ACCESSION NUMBER: 2001:323424 CAPLUS
DOCUMENT NUMBER: 135:22316
TITLE: Improvement of uranium extraction during uranium concentrate purification
AUTHOR(S): Aurelian, F.; Georgescu, D. P.; Serban, Nicoleta; Panturu, Eugenia
CORPORATE SOURCE: R&D Institute for Rare and Radioactive Metals, Bucharest, 70132, Rom.
SOURCE: Uranium 2000, Proceedings of the International Symposium on the Process Metallurgy of Uranium, Saskatoon, SK, Canada, Sept. 9-15, 2000 (2000), 383-390. Editor(s): Ozberk, E.; Oliver, A. J.
Canadian Institute of Mining, Metallurgy and Petroleum; Montreal, Que.
CODEN: 698BGT
DOCUMENT TYPE: Conference
LANGUAGE: English
REFERENCE COUNT: 4
THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 AB Graphite is removed from kaolin by dispersing the kaolin in water, adjusting the pH of the dispersion to 8-11, adding an oil under vigorous agitation, allowing the resulting emulsion to sep. into an aqueous phase and an organic phase, and removing to graphite-containing organic phase. This method avoids combustion of the graphite and rendering the kaolin unsuitable as whitener for paper. Treated kaolin contained graphite 0.02, Fe2O3 0.30, and TiO2 0.52%, and had whiteness 87.1%, vs. 0.12, 0.31, and 0.57%, and 83.9%, resp. for untreated kaolin.

ACCESSION NUMBER: 1990:534478 CAPLUS
 DOCUMENT NUMBER: 113:134478
 TITLE: Method for separating graphite from kaolin
 INVENTOR(S): Karhunen, Jukka
 PATENT ASSIGNEE(S): Kemira Oy, Finland
 SOURCE: Finn., 6 pp.
 CODEN: FIXXAP

DOCUMENT TYPE: Patent
 LANGUAGE: Finnish
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI 81074	B	19900531	FI 1988-5389	19881121
FI 81074	C	19900910		

PRIORITY APPLN. INFO.: FI 1988-5389 19881121

L11 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The solvent extraction of Au from 2 cyanide leaching solns. was carried out in a continuous circuit. A series of agitation columns was designed for a high aqueous-to-organic flow ratio. Aliquot 336 was selected due to its low water solubility and phase separation. The aromatic diluent Solvesso 150 was effective in preventing the formation of emulsions. The continuous circuit was run for a total time of 115 h, during which 164 L Campbell Red Lake solution and 180 L Teck-Corona Hemlo solution were processed. The extraction of Au was almost complete, whereas Fe, Cu, Ni and most other contaminating metals were not extracted. Au was recovered by distilling the diluent and incinerating the residue.

ACCESSION NUMBER: 1990:81470 CAPLUS
 DOCUMENT NUMBER: 112:81470
 TITLE: Solvent extraction of gold in a continuous circuit
 AUTHOR(S): Riveros, P. A.
 CORPORATE SOURCE: Miner. Sci. Lab., CANMET, Ottawa, ON, KIA 0G1, Can.
 SOURCE: Proc. Int. Conf. Sep. Sci. Technol., 2nd (1989), Volume 2, 610-18. Editor(s): Baird, M. H. I.; Vijayan, S. Can. Soc. Chem. Eng.: Ottawa, Ont.
 CODEN: 56SLAQ

DOCUMENT TYPE: Conference
 LANGUAGE: English

L11 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The title process comprises simultaneous electrochem. oxidation of Ce (III) to Ce (IV) in aqueous H2SO4 and the selective extraction of the Ce (IV) with an organic extractant. This process is useful for the continuous recovery of Ce from effluents and for the separation of Ce from other rare earth elements in H2SO4 solns. Thus, 0.5 L solution of Ce (III) in 1N H2SO4 was electrolyzed under agitation in the presence of 0.25 L organic phase consisting of a 0.8 M solution of di(Et-2 hexyl)phosphoric acid in kerosene, using Pt-coated Ti electrodes. After 1 h, the concentration of Ce (III) in the aqueous phase was 0.0146, and the concentration of Ce (IV) in the aqueous and organic phases 0.0079 and 0.155 mol/L, resp. The partition coefficient was 20.

ACCESSION NUMBER: 1989:597971 CAPLUS
 DOCUMENT NUMBER: 111:197971
 TITLE: Electrochemical oxidation of cerium (III) to cerium (IV) in emulsions
 INVENTOR(S): Horbez, Dominique; Storck, Alain; Grosbois, Jean
 PATENT ASSIGNEE(S): Rhone-Poulenc Chimie SA, Fr.
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW

DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 332512	A1	19890913	EP 1989-400590	19890303
EP 332512	B1	19930203		
R: AT, BE, DE, FR, GB, IT				
FR 2628408	A1	19890915	FR 1988-3021	19880309
FR 2628408	B1	19910222		
AT 85307	T	19930215	AT 1989-400590	19890303
AU 8931139	A	19890914	AU 1989-31139	19890308
AU 619258	B2	19920123		
BR 8901083	A	19891031	BR 1989-1083	19890308
CA 1328422	C	19940412	CA 1989-593081	19890308
JP 01287290	A	19891117	JP 1989-55271	19890309
JP 03006229	B	19910129		
US 4908108	A	19900313	US 1989-321094	19890309
			FR 1988-3021	A 19880309

PRIORITY APPLN. INFO.: EP 1989-400590 A 19890303

L11 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 AB A method for liquid membrane (carrier-mediated) extraction is described which avoids the addition of emulsifiers and other additives and the problem of optimizing contact time before emulsion destruction due to system agitation. Phases A and B are dispersed in lighter intermediate phase C filling both vertical sections of the apparatus with separation by a porous material (hydrophobic for water-oil-water systems). Lateral pulsations cause free circulation of organic C phase while aqueous dispersions cannot pass through the barrier. Maximum concentration driving force is obtained by continuous stripping from circulating C phase. Sample results for benzoic acid-H2O-kerosene using alkaline aqueous solution as stripping phase are described.

ACCESSION NUMBER: 1980:136196 CAPLUS
 DOCUMENT NUMBER: 92:136196
 TITLE: Further development of carrier-mediated extraction
 AUTHOR(S): Boyadzhiev, L.; Kyuchukov, G.
 CORPORATE SOURCE: Cent. Lab. Chem. Eng., Sofia, 1113, Bulg.
 SOURCE: Journal of Membrane Science (1980), 6(1), 107-12
 CODEN: JMESDO; ISSN: 0376-7388

DOCUMENT TYPE: Journal
 LANGUAGE: English

L11 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB The transfer of HNO_3 , H_2SO_4 , HCl and AcOH between 2 aqueous phases separated by an organic phase was studied using CCl_4 containing 0.1-1.0% tri-isobutyl phosphate as the carrier phase. The initial water-in-oil emulsion was prepared using sorbitan monooleate as emulsifier. The concentration of the surfactant in the organic phase was 2%. A portion

of this emulsion was gently stirred in another mixer filled with H_2O . During this agitation a secondary oil-in-water type emulsion was formed and kept suspended in the water phase, providing measurable transfer rates for all components but not destruction of the water-in-oil emulsion. The separation efficiency is not a monotonous function of time. It increases at the beginning and after passing through a maximum it decreases to zero. The time reqd. for maximum separation efficiency does not coincide with the maximum extraction yield.

ACCESSION NUMBER: 1976:579538 CAPLUS
DOCUMENT NUMBER: 85:179538
ORIGINAL REFERENCE NO.: 85:28687a, 28690a
TITLE: Separation of acids by two-stage extraction
AUTHOR(S): Boyadzhiev, L.; Bezenshek, E.
CORPORATE SOURCE: Cent. Lab. Chem. Eng., Sofia, Bulg.
SOURCE: Doklady Bolgarskoi Akademii Nauk (1976), 29(4), 559-62
CODEN: DBANAD; ISSN: 0366-8681
DOCUMENT TYPE: Journal
LANGUAGE: English

L11 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB Acid aqueous solns. containing chloride ions and metal values including Cu and Fe are contacted with an organic sulfide, preferably a hydrocarbon of 7-10 chain length attached to a S atom, in a solvent such as kerosene, benzene, CHCl_3 , or dichloroethane substantially immiscible with H_2O , to extract Cu preferentially to Fe, Ni, etc. On separation of the aqueous and organic phases, the Cu is recovered from the latter with H_2O by hydrolysis, and the treatment can be continuous. The acid concentration of the starting solution should be 2-10 g.-equivs., or 3-8N in

HCl ; or 0.3N H_2SO_4 can be used with NaCl added. With 3N HCl , 7% of the content is extracted, with no Fe, by di-Bu sulfide; and with 8N HCl 80% of the divalent Cu and 80% of the trivalent Fe are extracted together by the same sulfide. Ni and Co do not interfere. Vigorous agitation is required for extracting, and emulsions can be broken with alc. A simple straight-walled 1-l. vessel with a stirrer is a suitable apparatus. Data are reported for several extns. from a solution containing 18.6 g. ferric Fe and 25.4 g. cupric Cu/l., using 4 organic sulfide extractants, 3-8N HCl acidity, the same vols. of aqueous and organic phases, and 1 min. agitation at room temperature. A good result was obtained with 5N HCl and di-isooxymyl sulfide in kerosene, which gave in 1 pass 24% extraction of the Cu present, and 2.6% of the Fe.

ACCESSION NUMBER: 1968:107071 CAPLUS
DOCUMENT NUMBER: 68:107071
ORIGINAL REFERENCE NO.: 68:20715a, 20718a
TITLE: Selective extraction of copper from aqueous leach solutions with an organic sulfide solution
INVENTOR(S): Spitzer, Ernst L. T. M.; Radder, Johannes
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij N. V.
SOURCE: Brit., 5 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1107691		19680327	GB 1967-102	19670102
US 3528804		19700915	US	19671222

L11 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB The addition of a free elemental carbonaceous material to the aqueous, organic, or both phases before or after mixing prevents emulsification during the extraction of aqueous solns. of inorg. materials containing insol. or colloiddally soluble inorg. material with organic solvents. Thus, a crude $\text{Th}(\text{OH})_4$ ore containing ThO_2 61, rare earth oxides 7, UO_3 0.4, Fe_2O_3 2.5, P_2O_5 1.7, SiO_2 1.2, and HNO_3 -insol. material 24% was treated with an excess of 52% HNO_3 and the resulting solution was brought to a concentration of 280 g./l. $\text{Th}(\text{NO}_3)_4$, calculated as ThO_2 . Then

150 g./l. NaNO_3 was added and the acidity adjusted to 0.4M. The extraction solvent was Varsol, a petroleum aliphatic hydrocarbon with sp. gr. 0.78 at 25°, b. 160-205°, flash point 35°, and aromatic content 8-12%. When the emulsion was agitated at 60 r.p.m., 80% of the aqueous phase separated in 20 min., but >50% of the organic phase remained in emulsion. When 50 mg. active C was added to the organic phase, complete separation was achieved in 2 min.; with 100 mg. it took 30 sec. The same result was achieved with 130 mg. finely ground charcoal added to the organic phase. Separation time was 80 sec. with 100 mg. ground graphite and 2 min. with 300 mg. ground coke. After separation of the phases, each of the mixts. above was agitated 40 min. at 800-900 r.p.m., followed by slow agitation. The phase separation was the same as before. When 100 mg. active C was added to the aqueous phase before mixing, the separation time was 10-15 min. After agitating the emulsion 10 min. at 850 r.p.m., 100 mg. active C in 2 ml. H_2O was added and agitated 1 min., followed by slow agitation; the phases separated in 3 min. When 200 mg. charcoal were used, the phase-separation time was 6 min.; with 400 mg. ground coke, 10-12 min. When the 2 phases were remixed and agitated 1 hr. at 700-1000 r.p.m., phase-separation time remained the same. Other inorg. compds. used were a uraniferous ore from Aguas do Prate, a crude Na uranate, a crude CeO_2 , an oxidic iron ore, uranyl nitrate, and zircon ores.

ACCESSION NUMBER: 1962:59474 CAPLUS
DOCUMENT NUMBER: 56:59474
ORIGINAL REFERENCE NO.: 56:112931, 11294a-d
TITLE: Preventing the formation of emulsions
INVENTOR(S): Hadyar, Jose Behmoiras; Brill, Kazimierz J.; Krumholz, Pawel
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 887393		19580902	GB	
PRIORITY APPLN. INFO.:			BR	19590901

L11 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

AB The role of silicic acid in emulsion formation during the solvent extraction processing of U ore was studied and the results are discussed. The stability of emulsions formed with silicic acid aqueous phase vs. various organic phases was determined by mixing equal vols. of the 2 phases under agitation and noting the phase separation time from the end of mixing. With a given amine the stability of the emulsion formed was dependent on the anion present: sulfate (most stable), chloride, and perchlorate (least stable). Emulsion stability increased with Si concentration and the age of the silicic acid solution. The phase separation times of an aqueous sulfate system contacted with nonane solns. of (iso-Bu) $_2\text{CO}$ and Pr_2O increased with increasing silicic acid concentration. The effect of several organic additives on the phase separation time of an aq. phase containing 0.625 g. Si/l. as silicic acid in M sulfate, pH 1, and an organic phase consisting of 0.1N amine (Rohm and Haas 9D-178, mol. weight 376, 92% secondary, 2% primary, and 6% tertiary) sulfate in kerosene, 1 mole of additive used for each equivalent of amine. The additives studied were CHCl_3 , triethylene glycol dichloride, 1,2-dichloroethyl ether, 8-quinolinol, 2-bromo-4-tert-butylphenol, 2,6-di-tert-butyl-4-methylphenol, m-cresol, butyric acid, and lauric acid. Compds. containing active H atoms markedly decreased phase separation times, presumably by competing with the silicic acid H atoms for bonding sites on the amine sulfate O. It is suggested that silicic acid stabilizes oil-in-water-type emulsions by H bonding to electron-donating groups adsorbed on the surfaces of the organic droplets and forming typical silicic acid networks in the aqueous phase.

ACCESSION NUMBER: 1960:5996 CAPLUS
DOCUMENT NUMBER: 54:5996
ORIGINAL REFERENCE NO.: 54:1199a-d
TITLE: Emulsion stabilization by silicic acid
AUTHOR(S): Allen, K. A.; McDowell, W. J.
SOURCE: U.S. At. Energy Comm. (1959), ORNL-2771, 15 pp.
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L11 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 AB The direct esterification of silicic acid (I) was impractical until the recent discovery of a method of transferring I of low mol. weight from aqueous solution to solution in alc. by extraction of I with a suitable alc. (cf. Kirk, U.S. 2,408,656 (C.A. 41, 573b)); esterification is then effected by azeotropic distillation of H₂O from the alc. solution (cf. Kirk, U.S. 2,395,880 (C.A. 40, 3126.6)). I is least stable in H₂O in the pH range 5-7 and most stable at pH 1.5-2.0. In order to liberate I of lowest possible mol. weight the neutralization proceeds in such a manner that the solution is converted rapidly from the alkaline condition to pH 1-2.5. Thus Na silicate (II, 28.4% SiO₂, SiO₂/Na₂O ± 3.25) is diluted in the proportion of 777 g. II (liquid) to 1138 g. H₂O. Separately 1710 cc. of 7.35% H₂SO₄ are prepared and cooled to 20°. The diluted solution of II is then run into an equal volume of dilute acid with violent agitation. The addition is made in a stream not over 0.1 in. in diameter added directly to the vortex created by the stirrer and is complete in about 5 min. The pH of the resulting solution of I is 1.7 = 0.05. If alone cannot be salted out of aqueous solution; if, however, an organic solvent containing polar groups is present, saturation of the aqueous phase with a salt such as NaCl brings I into a loose association with the organic solvent, so that a sep. liquid phase is formed which can be separated from the brine layer (cf. Kirk, U.S. 2,408,656 (C.A. 41, 573b)). tert-BuOH (III) appears to be one of the most satisfactory solvents. Thus to the solution of I prepared as described there is added 1070 g. III. The mixture is stirred for 15 min. and then allowed to stand 16-18 hrs. at room temperature (< 30°) in order to insure a maximum yield. To the homogeneous solution there is added 1017 g. NaCl; stirring for 10 min. results in the appearance of the alc.-rich liquid phase containing I. The mixture is permitted to stand 20 min. in a separatory funnel; the lower, aqueous saline layer is drawn off, and the upper alc. layer is set aside for further processing. As the separation of the layers is often prevented by emulsion formation it is advisable to add 24 ml. of a 2% gelatin (IV) solution prior to the addition of the salt. IV appears to bring about the coagulation of a small amount of unidentified material which is responsible for emulsion formation. In a typical experiment the separated alc. layer (1540 cc.) contained 14.0% silica (V), 0.96% NaCl, and 10-15% H₂O. The yield of V is about 80-85% of that introduced as II. The freshly prepared alc. solution is a clear liquid having a η a little higher than that of III. It contains a small amount of acid, pH = 2, which appears to have a stabilizing effect; lowering the acidity causes increased gelling rates. At 20-30° the extract sets to a hard clear gel in 2-4 days. Stability is improved by the further addition of III on cooling to -20°. A much greater degree of stability is obtained by removing residual H₂O, either with desiccants or preferably by vacuum distillation at low temps., sepg. the H₂O as an alc.-H₂O azeotrope. To 1540 ml. of the solution of I in III

L11 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 an equal vol. of n-BuOH (VI) is added, together with 6 g. of BaCl₂. The latter converts the small amt. of H₂SO₄ present to an equiv. amt. of HCl. The mixt. is placed in a 3-l. flask fitted with a fractionating column which permits as much as a 4:1 reflux ratio. Distn. is carried out at 30 mm. with a reflux ratio of less than 1:1 and at a rate sufficient to remove 1131 cc. over a 2-hr. period. During this time, the original vol. is maintained in the distg. flask by the further addn. of VI. The temp. in the distg. flask rises from 28 to 39°. Distn. is then continued at 60 mm. 5 hrs., during which time 1696 cc. VI are added and 3260 cc. distillate removed. During this operation the temp. in the flask rises from 39 to 60°. At this point the soln. in the distg. flask has a vol. of about 1500 cc. and contains about 15% SiO₂. About 12 g. of Dicalite filter aid are added and the liquid is filtered to remove pptd. salts and traces of silica gel. Distn. is then continued at atm. pressure with a reflux ratio of at least 4:1 after addn. of 485 cc. VI, and the distg. rate is adjusted so as to remove 752 cc. of distillate over a period of 5 hrs. The temp. in the distg. flask finally reaches about 121°. The 1210 cc. of product are mixed with 10 g. of Dicalite and 20 g. Darco decolorizing C and again filtered. A typical product has the following analysis: SiO₂, 20.11%; H₂O, 0.11 g./100 cc. soln.; Cl, 0.03%; total solids, 33.98%; degree of esterification, BuO/Si, 0.613; pH 3.8. Solvent-free Bu polysilicate (VII) contg. 0.5-0.6 BuO groups per Si is a somewhat tacky resinous material which is readily sol. in many org. solvents, including CHCl₃, Me₂CO, and C₆H₆. The presence of unesterified acid groups is indicated by the increasing insoly. of VII on standing at room temp. for several days and also by chem. analysis. Less completely esterified intermediate products are sol. in alcs., Me₂CO, or other polar solvents, and are pptd. by the addn. of hydrocarbons. Upon evapn. of the solvent these products deposit a hard, brittle film which cannot be redissolved. Polysilicic acid esters of higher-boiling alcs., such as octyl, dodecyl, cyclohexyl, octadecyl, and methallyl alcs., can be prepd. from VII by an ester interchange reaction. In the prepn. of I, the yield is primarily dependent upon the mol. wt. of I in the aq. soln. at the time of extn. Although there is little or no change in the appearance of the aq. soln. of I, there is a progressive increase in the mol. wt. of I as the soln. is aged, the rate being a function of I concn., pH, and temp. An empirical titration method has been developed to follow this polymerization (cf. Iler and Kirk, U.S. 2,408,655 (C.A. 41, 5721)). The method depends upon the discovery that the pptn. of sol. I by IV is inhibited by H₂O-miscible org. solvents contg. electron-donor groups, e.g., O(CH₂CH₂OEt)₂. The concn. of the latter solvent required to inhibit pptn. depends upon the concn. of electrolyte in the mixt. and upon the mol. wt. of I. The pptn. point is relatively independent of the concns. of I and IV. The method used gives a value of 0 for solns. of IV and for solns. of I of low mol. wt.; solns. of I which have polymerized to the gel stage and are of large mol. wt. have values of 11 or 12. When x (the titration value) was 3.0 the yield of SiO₂ was 37%; with x = 8.5, the yield of SiO₂ rose to 82%. The ratio of vols. of III to I soln. has only a minor effect on the over-all recovery of the polysilicic acid. A η study indicates that the partially esterified VII mols. may be spherical in shape.
 ACCESSION NUMBER: 1948:4090 CAPLUS
 DOCUMENT NUMBER: 42:4090
 ORIGINAL REFERENCE NO.: 42:861a-i, 862a-e
 TITLE: Polysilicic acid esters-preparation from sodium

L11 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 AUTHOR(S): Iler, R. K.; Pinkney, P. S.
 CORPORATE SOURCE: E. I. du Pont de Nemours & Co., Cleveland, O.
 SOURCE: Journal of Industrial and Engineering Chemistry (Washington, D. C.) (1947), 39, 1379-84
 CODEN: JIECAD; ISSN: 0095-9014
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

=> log hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

110.44

110.65

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-12.48

-12.48

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 18:44:59 ON 16 NOV 2007